

WHAT IS CLAIMED IS:

1. A device for the adjustment of an operating parameter of an analog electronic circuit, comprising:

a set of adjustment resistances that can be configured from outside the circuit to modulate the value of resistances in the circuit and thus to adjust the value of the said parameter;

fusable means each associated with one of the said adjustment resistances and that will be selected and activated to configure the resistances of the adjustment device; and

a combinational logic circuit that receives a control signal as input applied from outside the circuit onto a terminal of this circuit and adapted to select one of the fusable means as a function of a signal applied to it.

2. The device according to claim 1, further including a count circuit connected to the combinational logic circuit and to which the control signal is applied as input, to increment the count in the count circuit forming an addressing signal of the fusible means, at each transition of this control signal.

3. The device according to claim 2, further including;

a circuit for controlling activation and de-activation of the electronic circuit and the adjustment device connected between the said terminal of the circuit and the count circuit; and

a stage to control activation and de-activation of the electronic circuit and a stage to generate a clock signal controlling the count circuit.

4. The device according to claim 3, wherein each control stage comprises a set of diodes in series connected between the said terminal of the analog electrical circuit and a switching element controlled as a function of the voltage applied to the said terminal of the circuit, the said diodes jointly defining a threshold voltage for activation of the switching element.

5. The device according to claim 3, wherein each control stage is provided with a hysteresis circuit.

6. The device according to claim 2, wherein the count circuit comprises a set of count flip flops and a set of logical gates at the input to the count circuit so as to accelerate transitions of the control signal.

7. The device according to claim 1, wherein the adjustment resistances are arranged in series with the corresponding fusible elements, with each assembly being composed of an adjustment resistance and a fusible element being arranged in parallel on a resistance of the circuit to be adjusted.

8. The device according to any one of claim 1, wherein each of the fusible elements is formed from a MOS transistor with a parasite two-pole transistor.

9. The device according to claim 1, further including means of adjusting a breakdown voltage threshold of the fusible elements.

10. The device according to claim 9, wherein each of the fusible elements is formed from a MOS transistor with a parasite two-pole transistor, and wherein the adjustment means comprise a resistance bridge arranged between the grid and the source of each MOS transistor.

11. An analog electronic circuit, comprising:

first resistances which may be modulated to adjust the value of an operating parameter of the analog electronic circuit;

second resistances that can be configured from outside the analog electronic circuit to modulate the value of the first resistances;

fuse elements associated with the second resistances and operable to configure the second resistances; and

a combinational logic circuit that selects fuse elements responsive to a control signal.

12. The analog electronic circuit according to claim 11, wherein it functions as a reference voltage source.

13. A process for adjusting an operating parameter of an analog electronic circuit, comprising:

measuring an analog circuit operating parameter;

setting a counter to zero;

setting a power supply voltage for the analog circuit above a first threshold value so as to de-activate the circuit;

generating a device control clock signal so as to increment the counter to a count level corresponding to a selected one of a plurality of fusible elements, that fusible element being associated with a resistance which has an effect on the operating parameter;

decoding the clock signal to select the corresponding fusible element; and

increasing the level of the power supply voltage up to the breakdown voltage of the fusible element and thus make an adjustment to the operating parameter.

14. A circuit, comprising

- a first resistor connected between a first and a second node;
- a modulation resistance circuit comprising a plurality of second resistors each in series with a corresponding one of a plurality of fusible elements, the modulation resistance circuit connected in parallel with the first resistor between the first and second node; and
- a logic circuit operable to select at least one of the fusible elements to be blown thus removing the corresponding second resistor from the parallel connection so as to adjust a resistance between the first and second nodes.

15. The circuit of claim 14 wherein the logic circuit comprises:

- a combinational logic circuit that decodes an addressing signal to select the fusible element to be blown.

16. The circuit of claim 15 wherein the logic circuit further comprises:

a counter circuit which increments responsive to a control signal and outputs a counter value as the addressing signal.

17. The circuit of claim 14 further comprising:

an activation control circuit that controls when the modulation resistance circuit and logic circuit are active to blow selected fusible elements.

18. The circuit of claim 17 wherein the activation control circuit activates in response to a power supply voltage increasing to exceed a certain threshold.

19. The circuit of claim 18 wherein the selected fusible element is blown when the power supply voltage further increases to exceed fusible element breakdown voltage.



20. An analog circuit having an operating parameter whose value is determined by an effective resistance value present between a first and a second node, comprising:

a variable resistance circuit connected between the first and second node and comprising a plurality of resistors each in series with a corresponding one of a plurality of fusible elements; and

a logic circuit operable to select at least one of the fusible elements to be blown thus removing the corresponding second resistor from the variable resistance circuit connection so as to adjust the effective resistance value between the first and second nodes.

21. The analog circuit of claim 20 wherein the analog circuit is a reference voltage source and the operating parameter is a reference voltage.

22. The analog circuit of claim 20 wherein the logic circuit comprises:

a combinational logic circuit that decodes an addressing signal to select the fusible element to be blown.

23. The analog circuit of claim 22 wherein the logic circuit further comprises:

a counter circuit which increments responsive to a control signal and outputs a counter value as the addressing signal.

24. The analog circuit of claim 20 further comprising:

an activation control circuit that controls when the modulation resistance circuit and logic circuit are active to blow selected fusible elements.

25. The analog circuit of claim 24 wherein the activation control circuit activates in response to a power supply voltage increasing to exceed a certain threshold.

26. The analog circuit of claim 25 wherein the selected fusible element is blown when the power supply voltage further increases to exceed fusible element breakdown voltage.